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Robert C. Curfiss
Jackson Walker L.L.P.
Suite 2100
112 E. Pecan,
San Antonio, TX 78205

EXAMINER

WONG, LESLIE

ART UNIT

PAPER NUMBER

2177

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,078

Applicant(s)

KELLEY, J. ROGER

Examiner

Leslie Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 23 is/are rejected.
- 7) ☒ Claim(s) 18-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to because the second drawing does not have a label and a view number associate with it (i.e., Figure 2). See MPEP §1.84(u). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 13, 14, 15, 16, 17, 19, 20, 21, 22, and 23 are objected to because of the following informalities: the claims do not end with a period. MPEP § 608.01(m).
Appropriate correction is required.

Allowable Subject Matter

4. Claims 18-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: Prior art of record fails to teach a combination of elements including calculation formulas for calculating emissions for valves, flanges piping, and compressor seals as recited in dependent claim 18.

Also, Prior art of record fails to teach a combination of elements including calculation formulas for calculating emissions caused by the transfer of higher pressure liquids from a process vessel to a storage tank of less pressure as recited in dependent claim 21.

Also, Prior art of record fails to teach a combination of elements including calculation formulas for calculating loading loss emissions as recited in dependent claim 22.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5-8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by **Dominguez et al.** (U.S. Patent 5,668,735).

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Regarding claim 1, **Dominguez et al.** teaches a method for collecting, assimilating and utilizing data from a variety of sources for determining the regulatory requirements and for generating the related compliance reports for an industry, the method comprising the steps of:

- a). collecting external data required for compliance requirements of a compliance model (col. 2, line 57 – col. 3, line 6);
- b). collecting data from a user (col. 23, lines 16-19);
- c). assimilating the external data and the user data in a processor to determine compliance by the user;
- d). automatically generating a report unique to the user data containing required compliance information (col. 23, lines 19-24).

Regarding claim 2, **Dominguez et al.** further teaches wherein the external data is public data (col. 5, lines 36-46).

Regarding claim 3, **Dominguez et al.** further teaches wherein the compliance model is a government agency compliance requirement (col. 1, lines 36-53).

Regarding claim 5, **Dominguez et al.** further teaches wherein the collected public data is industry specific (col. 5, lines 36-46).

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Regarding claim 6, **Dominguez et al.** further teaches wherein the collected user data is facility specific (col. 17, lines 12-15).

Regarding claim 7, **Dominguez et al.** further teaches wherein the collected user data is equipment specific (col. 5, 36-43).

Regarding claim 8, **Dominguez et al.** further teaches wherein the collected user data is location specific (col. 17, lines 12-15).

Regarding claim 11, **Dominguez et al.** teaches wherein there is further included a mathematical database and wherein data in the collected public data and in the collected user data is imported into the mathematical database for calculating compliance data in the generation of a report (col. 24, lines 41-65).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Singer et al.** (U.S. Patent 6,557,009 B1).

Regarding claim 4, **Dominguez et al.** does not explicitly teach the step of electronically submitting the generated report to a relevant agency.

Singer et al., however, teaches the step of electronically submitting the generated report to a relevant agency (col. 1, lines 13-22 and abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to allow electronically submitting of compliance reports to a relevant agency because doing so would increased efficiency as a result of reduced administrative time and costs, as well as increased data accuracy through on-line updating (col. 3, lines 57-65).

Regarding claim 23, **Singer et al.** further teaches wherein the mathematical database includes the primary calculation formulas for calculating emissions fees (col. 8, lines 22-30).

9. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Sziklai et al.** (U.S. Patent 6,341,287 B1)

Regarding claim 9, **Dominguez et al.** does not explicitly teach the step of creating a library of available data from the collected public data and non-confidential portions of the collected user data.

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Sziklai et al., however, teaches posting regulatory changes for reference in different media, including paper, microfiche and electronic media (col. 10, lines 15-33).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have a central repository of regulated information in order to facilitate accessing information and enhancing the process of preparing and submitting of compliance data to related agency.

Regarding claim 10, **Dominguez et al.** does not explicitly teach the steps of linking the public data to on-line databases and importing data from said databases into the collected public data.

Sziklai et al., however, teaches posting regulatory changes for reference in different media, including paper, microfiche and electronic media (col. 10, lines 15-33).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have a central repository of regulated information in order to facilitate accessing information and enhancing the process of preparing and submitting of compliance data to related agency.

10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Baker** (U.S. Patent 4,553,983).

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Regarding claim 12, **Dominguez et al.** does not explicitly teach wherein the mathematical database is an air module database for calculating hydrocarbon emissions from a crude oil storage tanks.

Baker, however, teaches a step of calculating hydrocarbon emissions from a crude oil storage tanks (col. 5, line 61 – col. 6, line 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ a mathematical database that contains the formulas for calculating hydrocarbon emissions from a crude oil storage tanks as doing so would facilitate access and retrieval of formulas to calculate hydrocarbon emissions from a crude oil storage tanks and other emissions which required by the agency.

Regarding claim 13, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from storage tanks.

Baker, however, teaches a step of calculating hydrocarbon emissions from a crude oil storage tanks (col. 5, line 61 – col. 6, line 10).

11. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) in view of **Baker** (U.S. Patent 4,553,983) as applied to claims 12-13 above and further in view of **Yamafuji et al.** (U.S. Patent 6,227,177 B1)

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Regarding claim 14, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from internal combustion engines.

Yamafuji et al., however, teaches a step of calculating hydrocarbon emissions from internal combustion engines (col. 3, line 25 – col. 4, line 30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for hydrocarbon emissions from internal combustion engines in order to satisfy the requirement of the agency.

Regarding claim 15, **Dominguez et al.** further teaches wherein the primary formula is repeated for each of the following pollutants: NO_x, CO, SO₂, PA or PM₁₀, VOC_{NM} (col. 17, lines 12-19).

12. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) in view of **Baker** (U.S. Patent 4,553,983) as applied to claims 12-13 above and further in view of **Hemler, Jr. et al.** (U.S. Patent 4,198,287).

Regarding claim 16, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from external combustion engines.

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Hemler, Jr. et al., however, teaches a step of calculating hydrocarbon emissions from external combustion engines (col. 8, lines 7 – col. 9, line 16).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for hydrocarbon emissions from external combustion engines in order to satisfy the requirement of the agency.

Regarding claim 17, **Dominguez et al.** further teaches wherein the primary formula is repeated for each of the following pollutants: NO_x, CO, SO₂, PA or PM₁₀, VOC_{NM} (col. 17, lines 12-19).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Rabe** (U.S. Patent 6,234,390 B1).

Regarding claim 23, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating emission fees.

Rabe, however, teaches acquiring and/or paying a fee for exhaust pollutants and a motor vehicle with an exhaust pollutant. (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for emission fees for exhaust pollutants in order to satisfy the requirement of the agency.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Behrens et al. (U.S. Patent 5,490,873)

Zimmerman et al. (U.S. Patent 6,564,154 B1)

Sturgeon et al. (U.S. Patent 5,726,884)

Kim et al. (US 2003/0085179 A1)

Miller et al. (U.S. Patent 6,360,159 B1)

Ryan et al. (US 2003/0055669 A1)

Torkzadeh et al. – Engine modeling and exhaust gas estimation for DI-Diesel engines.

Vaughan, Rodney – Secondary emission formulas

Carter et al. – Initial development of a predictive hydrocarbon emissions model for a di-diesel engine.

Miller, Steven – Environmental considerations for preheater design.

Herzog, Joe – Current and near-term emission control strategies for diesel powered generator sets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (703) 305-3018. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Leslie Wong
Patent Examiner
Art Unit 2177

lw



JEAN R. HOMERE
PRIMARY EXAMINER